Amendments to the Claims:

1. (Withdrawn) A method of making a cell culture environment, said method comprising:

a) crosslinking a polymer to form a hydrogel;

b) forming pores within said hydrogel; and

c) non-covalently incorporating at least one biologically active molecule into said porous hydrogel.

2. (Withdrawn) The method of claim 1, wherein said polymer is selected from the group consisting of alginate, modified alginates, hyaluronic acid, modified hyaluronic acid, agarose, collagen, chitosan, chitin, poly vinyl alcohol, polytrimethylene carbonate, poly hydroxybutyrate, amino acid-based polycarbonates, poly vinylchloride, polyHEMA, PTFE, poly ethylene glycol, poly methylmethacrylate, poly fumarate, polypropylene glycol-based polymers, and derivatives thereof.

3. (Withdrawn) The method of claim 1, wherein said forming pores comprises freezing and lyophilizing said hydrogel.

4. (Withdrawn) The method of claim 3, wherein said non-covalently incorporating said at least one biologically active molecule comprises hydrating said lyophilized hydrogel with a solution comprising said at least one biologically active molecule, and drying or lyophilizing said hydrated porous hydrogel.

5. (Withdrawn) The method of claim 1, wherein said at least one biologically active molecule is selected from the group consisting of extracellular matrix molecules (ECM), growth factors, cell-signaling molecules and derivatives thereof.

6. (Withdrawn) The method of claim 5, wherein said at least one biologically active molecule comprises at least one extracellular matrix molecule (ECM) and at least one cell signaling molecule.

7. (Withdrawn) The method of claim 6, wherein said ECM is selected from the group consisting of fibronectin, laminins, collagens, thrombospondin 1, vitronectin, elastin, tenascin, aggrecan, agrin, bone sialoprotein, cartilage matrix protein, fibronogen, fibrin, fibulin, mucins, entactin, osteopontin, plasminogen, restrictin, serglycin, SPARC/osteonectin, versican, von Willebrand Factor, heparin sulfate proteoglyean, hyaluronan, merosin, osteopontin, osteonectin, cell adhesion molecules, cadherins, connexins and selectins.

8. (Withdrawn) The method of claim 5, wherein said growth factor is selected from the group consisting of acidic fibroblast growth factor, basic fibroblast growth factor, platelet-derived growth factor, nerve growth factor, transforming growth factor-β, hematopoietic growth factors and interleukins.

9-18. (Canceled)

19. (Withdrawn) A method of culturing cells, comprising:

a) seeding cells on the cell culture environment of claim 9; and

b) maintaining said cells within said environment under appropriate cell culture conditions.

20. (Currently Amended) A method for assaying cellular function in response to at least one test molecule, said method comprising:

a) seeding cells onto ~~the~~ a cell culture environment that comprises a porous hydrogel scaffold and said at least one test molecule, wherein said at least one test molecule is non-covalently attached to said porous hydrogel scaffold; ~~of claim 9, wherein said at least one non-covalently attached biologically active molecule is said test molecule;~~

b) maintaining said cells on said cell culture environment under appropriate conditions; and

c) determining said cultured cells' response to said maintenance on said cell culture environment.

21. (Original) The method of claim 20, wherein said cells are seeded in an *in vitro* setting.

22. (Original) The method of claim 21, wherein said appropriate conditions comprise cell culture conditions.

23. (Original) The method of claim 20, wherein said cells are seeded in an *in vivo* setting.

24. (Original) The method of claim 23, wherein said maintaining said cells under appropriate conditions comprises maintaining said cell culture environment in a subject.

25. (Withdrawn) A method of producing a cell-based in vivo transplant, said method comprising:

a) in an *in vitro* setting, seeding cells on the cell culture environment of claim 9; and

b) maintaining said cells on said cell culture environment under appropriate cell culture conditions.

26. (Canceled)

27. (Canceled)

28. (New) The method of claim 20, wherein said porous hydrogel scaffold comprises covalently crosslinked alginate.

29. (New) The method of claim 20, wherein said porous hydrogel scaffold comprises covalently crosslinked hyaluronic acid.

30. (New) The method of claim 20, wherein a plurality of said cell culture environments are distributed on a surface of a platform in the form of spots, forming an array of said cell culture environments.

31. (New) The method of claim 30, wherein said platform comprises a multiwell plate.

32. (New) The method of claim 30, wherein said plurality of cell culture environments are attached to said platform through covalent attachment.

33. (New) The method of claim 32, wherein said platform is coated with a substrate and said plurality of cell culture environments are attached to said platform through covalent bonding to the substrate.

34. (New) The method of claim 33, wherein the substrate is hyaluronic acid.

35. (New) The method of claim 30, wherein said plurality of cell culture environments comprise identical constituents.

36. (New) The method of claim 30, wherein said plurality of cell culture environments comprise different constituents.